



Meeting Notes

Planning Information Forum: Setting Bridge Condition Targets -- May 20, 2016

Attendees (non-CMAP)

Name	Organization
Dhruv Narielwala	Illinois Department of Transportation
Nadir Shah	Cook County Department of Transportation and Highways
Sis Killen	Cook County Department of Transportation and Highways
Tom Rickert	Kane County Division of Transportation
Emily Karry	Lake County Division of Transportation
Chris Snyder	DuPage County Division of Transportation
Tom Hardy	DuPage County Division of Transportation
Christina Kupkowski	Will County Division of Transportation
Scott Hennings	McHenry County Division of Transportation
Jim Werner	McHenry County Division of Transportation
Jennifer Becker	Kane County Council of Mayors
Patrick Knapp	Kane County Council of Mayors
Brian Carlson	Illinois Department of Transportation
Steve Strains	Northeastern Indiana Regional Planning Commission
Randy Neufeld	SRAM Fund
James Hickey	Regional Transportation Authority
Luis Benitez	Chicago Department of Transportation

Summary of presentations

- **IDOT Central office** (Dhruv Narielwala). IDOT uses the Bridge Analysis and Monitoring System (BAMS) to track bridge deficiency levels and assist in prioritizing and developing the bridge component in the multi-year highway program. BAMS consists of 16 tables, numbered 1 through 16, with 1 being worst and 16 best. A bridge is assigned a BAMS table based on its inspected condition; bridges that are not assigned a BAMS table have no issues. Bridges are inspected every 2 years or more often depending on the age and condition of the bridge. The district bridge engineer and programming department work together to develop a program to send to planning and programming in the central office. IDOT's goal is to remain at or above a 93% acceptable condition for state bridges.
- **Cook County Department of Transportation and Highways** (Nadir Shah). Cook County Department of Transportation and Highways inspects bridges regularly and rates them based on the National Bridge Inspection Standards (NBIS). The department targets improvements on bridges with a condition rating of 5 or below. Through



preservation treatments the county is able to extend a bridges useful life to 100 years and currently use a 2-tiered system for scheduling improvements, short term and long term. The County has a large number of high cost bridge improvements coming in the next 5 - 15 years.

- **Chicago Metropolitan Agency for Planning** (Jesse Elam). For the GO TO 2040 financial plan, CMAP used typical capital maintenance intervals to forecast bridge improvement and reconstruction costs. This approach could be improved by being based on bridge condition and being tied to achieving bridge condition targets. CMAP has created an in-house bridge condition model based on deterioration curves for Illinois from NBI data to forecast bridge investment needs for the next long-range plan and to estimate the degree to which projects programmed in the Transportation Improvement Program (TIP) help achieve plan targets. The presentation showed initial results for these two analyses. First, achieving the GO TO 2040 plan target – to have 4 percent structural deficiency-- would require a substantial investment in the near term and again at the end of the planning period. Second, the analysis of the projects in the TIP suggested bridge condition would decline rapidly rather than helping achieve the targets.

Discussion

- IDOT does not increase the deck rating for a bridge when a deck overlay improvement is completed on a bridge. It does use and will continue to use the National Bridge Inspection Standards (NBIS) structural deficiency rating when creating the BAMS tables. No other agencies are using BAMS at this time.
- The results from the CMAP model seem reasonable with a large number of big ticket items occurring in the 5 – 10 year horizon and again near the plan horizon year. County representatives are seeing the same trend in the coming years.
- One participant working for a county wondered if the CMAP target of 4% bridge deficiency was realistic. Staff displayed a chart tracking the progress towards the goal and it did not seem too far off if the region continues on the same path or curve. They also mentioned that bridge work is the largest component in the county's program.
- A county representative would like staff to research and incorporate into the CMAP model preventive maintenance that will bump up the bridge condition rating to increase the useful life of a bridge.

Considerations for next long-range plan

Based on the discussion at the forum, staff suggests that the Transportation Committee (TC) consider the following:



- It will not be possible to estimate whether adequate investment is being made in bridges if some projects are missing from the TIP. All bridge improvement projects on the NHS should be included in the TIP regardless of their fund source and be individually identified when rolled up in a corridor project.
- Staff will continue to develop the bridge condition forecasting model to incorporate preventive maintenance that will improve condition ratings, particularly deck ratings, and increase the useful life of a bridge. Staff will also continue to meet with implementers to refine bridge improvement project types and the cost estimates associated for each type.